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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,547	10/14/2003	J. Scott Carr	P0869	3480

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DIGIMARC CORPORATION
9405 SW GEMINI DRIVE
BEAVERTON, OR 97008

EXAMINER

HA, LEYNNA A

ART UNIT	PAPER NUMBER
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2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/686,547

Applicant(s)

CARR ET AL.

Examiner

LEYNNA T. HA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 and 30-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 25-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-51 is pending.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20 and 25-29, drawn to verifying a document by digital watermark, classified in class 713, subclass 176.
- II. Claims 21-24 and 48-51, drawn to a security document having production of printed copy, classified in class 380, subclass 55.
- III. Claims 30-47, drawn to embedding watermark information in a captured image, classified in class 358, subclass 3.28.

3. During a telephone conversation with Steven Stewart on January 11, 2007, a provisional election was made for claims 1-20 and 25-29 of Species I, but traverse to prosecute the invention of Species II and III, claims 21-24 and 30-51. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-24 and 30-51 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37

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CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by DiMaria (US 6,148,091).

As per claim 1:

Dimaria discloses a method of verifying an age of a bearer of a document, the document comprising auxiliary data steganographically embedded in the document, wherein the auxiliary data comprises at least an age indicator and a biometric indicator, said method comprising the steps of:

receiving first digital data corresponding to the age indicator; **(col.3,**

lines 12-15 and col.4, lines 63-64; DiMaria discloses the stored age data is

the claimed first digital data corresponding to the age indicator that indicates an encoded age of the bearer.)

receiving second digital data corresponding to the biometric indicator;
(col.5, lines 58-61; DiMaria discloses the stored epidermal topographical pattern as the claimed second digital data. Dimaria discloses personal physical characteristics, which are biometric data (i.e. epidermal topographical pattern, iris pattern, or retina pattern) that is given by the bearer to a scanner for verification purposes (col.3, lines 63-65). The biometric indicator indicates an encoded authorized epidermal topographical pattern (col.3, lines 3-5) of the identification document.)

receiving third digital data corresponding to a biometric sample, wherein the biometric sample corresponds to the bearer; and **(col.4, lines 10-15 and col.5, lines 62-65; DiMaria discloses a scanned epidermal topographical pattern that's generated by a scanner is the claimed third digital data corresponding to the biometric sample corresponds to the bearer.)**

verifying the bearer's age when: i) the first digital data indicates that the bearer is at least as old as a predetermined age **(col.4, lines 16-18 and col.5, lines 15-18 and 45-55)** , and ii) the second digital data and the third digital data correspond. **(col.3, lines 5-8 and col.5, lines 65-67)**

As per claim 2: See col.3, lines 45-51 and col.5, lines 57-59; discussing the method of claim 1, further comprising interrogating a data repository with the biometric indicator to obtain the second digital data.

As per claim 3: See col.3, lines 52-55; discussing the method of claim 2, further comprising interrogating the data repository with the age indicator to obtain the first digital information.

As per claim 4: See col.3, lines 3-5 and col.5, lines 62-65; discussing the method of claim 2, wherein the second digital data comprises a biometric template associated with the bearer.

As per claim 5: See col.3, lines 63-65 and col.4, lines 10-15; discussing the method of claim 4, wherein the biometric template includes information associated with at least one of the bearer's fingerprint, face map, hand geometry, iris, retina, DNA, voiceprint and vein pattern.

As per claim 6: See col.4 lines 8-13; discussing the method of claim 1, wherein the third digital data is received through a network.

As per claim 7: See col.3, lines 20-22; discussing the method of claim 6, wherein the network comprises the internet.

As per claim 8: See col.3, lines 62-65; discussing the method of claim 1, wherein the biometric indicator comprises a biometric template.

As per claim 9: See col.3, lines 63-65 and col.4, lines 10-15; discussing the method of claim 8, wherein the biometric template includes information associated with at least one of the bearer's fingerprint, face map, hand geometry, iris, retina, DNA, voiceprint and vein pattern.

As per claim 10: See col.4, lines 19-21 and 61-62; discussing the method of claim 1, wherein the third digital data further comprises a timestamp.

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As per claim 11: See col.3, lines 57-65; discussing the method of claim 4, wherein the auxiliary data comprises plural bits of data and wherein the biometric indicator and the age indicator comprise the same plural bits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-20 and 25-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Dimaria (US 6,148,091), and further in view of Sehr (US 6,999,936).

As per claim 12:

Dimaria discloses a method of anonymously verifying an age or characteristic associated with a person, the person being in possession of an identification document, the identification document including a document layer and printing carried by the document layer, the identification document further including a digital watermark embedded therein, the digital watermark

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including a first set of information, the first set of information including information to verify age or an age level of the person, said method being characterized by:

receiving optical scan data corresponding to the identification document, the optical scan data being generated by an optical sensor; **(col.4, lines 10-15 and col.5, lines 62-65; DiMaria discloses a scanned epidermal topographical pattern that's generated by a scanner is the claimed optical scan data generated by an optical sensor. The claimed optical scan data can broadly be interpreted as personal physical characteristics, which are biometric data (i.e. epidermal topographical pattern, iris pattern, facial pattern, fingerprint pattern) of a bearer that is scanned and generated by a scanner (col.5, lines 62-65).)**

determining, based on the first set of information, the person's age or age level. **(col.4, lines 16-20 and col.5, lines 1-15; DiMaria discloses the age data is the claimed first set of information.)**

Dimaria discloses encoding age data (col.2, lines 61-65) and personal physical characteristics (i.e. epidermal topographical pattern) information (col.3, lines 63-65) on the identification document. The claimed scan data can broadly be interpreted as personal physical characteristics, which are biometric data (i.e. epidermal topographical pattern, iris pattern, facial pattern, fingerprint pattern) of a bearer that is scanned and generated by a scanner (col.5, lines 62-65). DiMaria discloses if the received encoded epidermal

topographical pattern matches the scanned epidermal topographical pattern, then the age information (first set of information) may be obtained (col.5, lines 62-65). However, Dimaria did not go into details of matching includes decoding the scan data.

Sehr discloses provides a document in the form of a card to gain access by verifying that the card data is authentic (col.2, lines 57-61). Sehr discloses retrieving and evaluating selected information recorded onto such documents. Sehr includes sets of information are in the forms of date of birth (DOB) or picture captured from a valid driver's license to determine the age (col.10, lines 10-13) and physical appearances or biometrics (co.11, lines 19-22 and col.33, lines 16-32). Sehr discloses encoded information can be scanned (col.22, lines 7-10) and communicated for comparison to the ones stored in the card (col.19, lines 24-30 and col.33, lines 32-45). Sehr discloses the encoding/decoding functions allow the related translation/conversion of information with respect to different data formats and different data contents (col.7, lines 58-61 and col.20, lines 41-44).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine the teaching of encoding scan data (i.e. epidermal topographical pattern) on the identification document as taught by DiMaria with the teaching of encoding/decoding the scan data as taught by Sehr because these functions allow the related translation/conversion of information with respect to different data formats and different data contents (col.7, lines

58-61 and col.20, lines 41-44).

As per claim 13: See DiMaria on col.5, lines 5-17; discussing the method of claim 12, wherein the first set of information comprises at least one of the person's birth date, age level indicator and a concatenated string of data comprising the person's birth date and addition data.

As per claim 14: See DiMaria on col.3, lines 5-8 and col.5, lines 57-67; discussing the method of claim 12, wherein the identification document further comprises a second set of information embedded therein, the second set of information corresponding to a third set of information that is printed on the identification document, wherein the second set of information comprises an index for accessing a data repository.

As per claim 15: See DiMaria on col.7, lines 49-60 and col.15, lines 1-18; discussing the method of claim 14, wherein the index comprises a hash of the third set of information that is printed on the identification document.

As per claim 16: See Sehr on col.7, lines 58-61 and col.20, lines 41-44; discussing the method of claim 14, further comprising the steps of computing a hash of the third set of information that is printed on the identification document, decoding the second set of information that is embedded in the identification document to obtain the embedded hash, and comparing the computed hash and the embedded hash to determine authenticity of the document.

As per claim 17: See Sehr on col.8, lines 1-15 and col.15, lines 10-19;

discussing the method of claim 12, further comprising storing at least a portion of the first set of information in at least one of a list, electronic memory circuits and a data record, wherein the stored portion of the first set of information serves as an audit clue to evidence that the identification document has been examined.

As per claim 18: See DiMaria on col.5, lines 12-14; discussing the method of claim 17, wherein the first set of information comprises two or more random bits.

As per claim 19: See DiMaria on col.5, lines 1-14; discussing the method of claim 18, wherein the first set of information comprises a date of birth.

As per claim 20: See Sehr on col.7, lines 43-59 and col.15, lines 10-19; discussing the method of claim 19, wherein a combination of the random bits and the date of birth decrease likelihood of overlapping birth dates, while maintaining an anonymous audit clue.

As per claim 25:

Dimaria discloses a method comprising:
receiving optical scan data that is associated with an identification document, the identification document comprising plural-bits of data steganographically embedded in the identification document (**col.3, lines 42-65 and col.4, lines 10-15**), wherein the plural-bits of steganographically embedded data comprise at least a first field and a second field, the first field

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carrying or linking to information corresponding to a bearer of the identification document **(col.5, lines 58-61; Dimaria discloses personal physical characteristics, which are biometric data that is given by the bearer to a scanner for verification purposes (col.3, lines 63-65). DiMaria discloses the biometric data or the epidermal topographical pattern as the claimed optical scan data. The first field is the encoded epidermal topographical pattern (col.3, lines 3-5) corresponding to the bearer of the identification document.)** and the second field corresponding to an age or age level of the bearer of the identification document; **(col.3, lines 12-15 and col.4, lines 16-20; DiMaria discloses the stored age data is the claimed second field corresponding to an age of the bearer.)**

receiving information carried by the document, and generating a reduced-bit representation of the received information; and **(col.2, lines 61-65 and col.4, lines 56-58)** comparing data corresponding to the second field with the reduced-bit representation to verify an age level of the document. **(col.5, lines 12-18 and 45-55)**

Dimaria discloses encoding age data (col.2, lines 61-65) and personal physical characteristics (i.e. epidermal topographical pattern) information (col.3, lines 63-65) on the identification document. The claimed optical scan data can broadly be interpreted as personal physical characteristics, which are biometric data (i.e. epidermal topographical pattern, iris pattern, facial pattern, fingerprint pattern) that is given by the bearer to a scanner. DiMaria discloses

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if the received encoded epidermal topographical pattern matches the scanned epidermal topographical pattern, then the age information (the second field) may be read (col.5, lines 62-65). However, Dimaria did not discuss decoding the optical scan data.

Sehr discloses provides a document in the form of a card to gain access by verifying that the card data is authentic (col.2, lines 57-61). Sehr discloses retrieving and evaluating selected information recorded onto such documents. Sehr includes sets of information are in the forms of date of birth (DOB) or picture captured from a valid driver's license to determine the age (col.10, lines 10-13) and physical appearances or biometrics (co.11, lines 19-22 and col.33, lines 16-32). Sehr discloses encoded information can be scanned (col.22, lines 7-10) and communicated for comparison to the ones stored in the card (col.19, lines 24-30 and col.33, lines 32-45). Sehr discloses the encoding/decoding functions allow the related translation/conversion of information with respect to different data formats and different data contents (col.7, lines 58-61 and 20, lines 41-44).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine the teaching of encoding optical scan data (i.e. epidermal topographical pattern) on the identification document as taught by DiMaria with the teaching of encoding/decoding the optical scan data as taught by Sehr because these functions allow the related translation/conversion of information

with respect to different data formats and different data contents (col.7, lines 58-61 and 20, lines 41-44).

As per claim 26: See DiMaria on col.3, lines 12-15 and col.5, lines 62-67; discussing the method of claim 25, wherein the data corresponding to the second field does not betray the identity of the authorized bearer of the identification document.

As per claim 27: See DiMaria on col.3, lines 46-55; discussing the method of claim 26, further comprising storing the data corresponding to the second field in a data repository to evidence examination of the identification document.

As per claim 28: See DiMaria on col.4, lines 20-25; discussing the method of claim 26, further comprising printing the data corresponding to the second field to evidence examination of the identification document.

As per claim 29: See DiMaria on col.3, lines 56-67 and col.4, lines 10-15; discussing the method of claim 25, wherein said receiving information carried by the document comprises receiving data corresponding to at least one of data generated by a barcode scanner, optical character recognizer, manual entry and watermark decoder.

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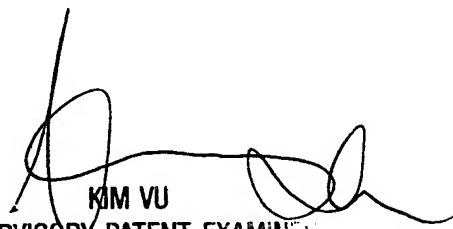
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lha


KIM VU
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2100